

a display device **1000**, a peripheral device **2230**, and a memory **2240** that are electrically connected to a system bus **2210**.

[0118] The processor **2220** may control data to be input/output to/from the peripheral device **2230**, the memory **2240** and the display device **1000**. The processor **2220** may perform image processing on image data transmitted among the peripheral device **2230**, the memory **2240** and the display device **1000**. The display device **1000** may include a display panel **200** and a display driving device **100**. The display device **1000** may store image data that is applied via the system bus **2210** in a frame memory or a line memory included in the display driving device **100**, and may display the image data on the display panel **200**. The display device **1000** may be the display device **1000** of FIG. 1.

[0119] The peripheral device **2230** may be a device that converts a moving image or a still image into an electrical signal such as a camera, a scanner, or a webcam. Image data that is obtained by the peripheral device **2230** may be stored in the memory **2240**, or may be displayed in real time on a panel of the display device **1000**. The memory **2240** may include a volatile memory element such as dynamic random-access memory (DRAM) and/or a nonvolatile memory element such as a flash memory. Examples of the memory **2240** may include DRAM, phase change random-access memory (PRAM), magnetic random-access memory (MRAM), resistive random-access memory (ReRAM), ferroelectric random-access memory (FRAM), a NOR flash memory, a NAND flash memory, and a fusion flash memory (for example, a memory in which a static random-access memory (SRAM) buffer, a NAND flash memory, and a NOR interface logic are combined). The memory **2240** may store image data that is obtained from the peripheral device **2230** or may store an image signal that is processed by the processor **2220**.

[0120] The display system **2200** may be provided in a mobile electronic device such as a tablet PC. However, the present exemplary embodiment is not limited thereto, and the display system **2200** may be provided in any of various electronic devices that may display an image.

[0121] FIG. 16 is a view illustrating various electronic devices to which the display device **1000** is applied, according to an exemplary embodiment. The display device **1000** may be provided to any of various electronic devices. The display device **1000** may be widely applied to a mobile phone, an automated teller machine (ATM) that automatically performs cash deposit and withdrawal at banks, an elevator, a ticket issuer that is used in a subway station or the like, a portable multimedia player (PMP), an e-book, a navigation system, and a tablet PC. The display device **1000** may include the display driving device **100** that may reduce power consumption and EMI. Accordingly, various electronic devices including the display device **1000** may accurately operate with low power consumption.

[0122] While the inventive concept has been particularly shown and described with reference to exemplary embodiments thereof, it will be understood that various changes in form and details may be made therein without departing from the spirit and scope of the following claims.

What is claimed is:

1. A display device comprising:

a display panel comprising a plurality of pixel arrangement areas, each of the plurality of arrangement areas comprising a plurality of pixels arranged in areas in which a plurality of gate lines intersect a plurality of data lines;

a data driving circuit comprising a plurality of source drivers, each of the plurality of source drivers being configured to output display data to data lines of corresponding pixels; and

a timing controller configured to process input data from an external device and configured to generate output data, wherein the timing controller is configured to classify the plurality of pixel arrangement areas based on a distance between the timing controller and each of the plurality of pixel arrangement areas, and

the timing controller is configured to transmit the output data to the data driving circuit at at least two transmission speeds based on a result of classifying the plurality of pixel arrangement areas.

2. The display device of claim 1, wherein the number of pixels of each of the plurality of pixel arrangement areas changes according to the distance between the timing controller and each of the plurality of pixel arrangement areas.

3. The display device of claim 1, further comprising at least two transmission channels configured to transmit the output data from the timing controller to the data driving circuit, wherein a first transmission channel among the at least two transmission channels is configured to transmit the output data at a first speed, and

a second transmission channel among the at least two transmission channels is configured to transmit the output data at a second speed that is different from the first speed.

4. The display device of claim 1, wherein the timing controller comprises at least two port output terminals configured to transmit the output data to the data driving circuit at different transmission speeds.

5. The display device of claim 1, wherein the plurality of pixel arrangement areas comprise a first pixel arrangement area and a second pixel arrangement area, and

a vertical or horizontal distance between the timing controller and the first pixel arrangement area is shorter than a vertical or horizontal distance between the timing controller and the second pixel arrangement area.

6. The display device of claim 5, wherein the data driving circuit comprises:

a first source driver circuit comprising at least one source driver configured to output a first display data group corresponding to the first pixel arrangement area; and

a second source driver circuit comprising at least one source driver configured to output a second display data group corresponding to the second pixel arrangement area, the first source driver circuit and the second source driver circuit being connected to the timing controller through a plurality of transmission channels.

7. The display device of claim 6, wherein a first transmission speed at which the timing controller transmits a first output data group to the first source driver circuit is higher than a second transmission speed at which the timing controller transmits a second output data group to the second source driver circuit.

8. The display device of claim 7, wherein the number of pixels of the first pixel arrangement area is greater than the number of pixels of the second pixel arrangement area, and the amount of data of the first output data group is greater than the amount of data of the second output data group.

9. The display device of claim 7, wherein the data driving circuit comprises an output data buffer configured to receive the output data from the timing controller, and